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**The impact of ownership structure on Chief Executive
Compensation:**
-Case of Swedish listed firms.

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Abstract

This paper is aimed at studying the relationship between ownership structure via the separation of cash flow and voting right and its impact on executive compensation in Swedish list companies

Using a cross sectional analysis of data on ownership concentration, voting right, executive compensation and control variables such as performance and company size from 2008 annual report. We found out that the ownership structure of most Swedish listed firm are concentrated with the largest owner having an average equity stake of 21.7% and a voting right of 33% in the ownership structure. The separation of equity stake (cash flow right) from voting rights is a result of control enhancing devices (dual class share and pyramidal structure). The wide deviation of cash flow right and voting right indicates a high degree of separation of control from ownership and the extend of the conflict of interest within Swedish listed firms

The regression analysis shows that ownership variables like cash flow and voting right have no significant impact on the level of executive compensation. This is as a result of the fact that the level of CEO compensation may depends on the industry where the firm operates, micro-economic fluctuations which blurt the link between ownership concentration and the level of executive compensation and also the country specific characteristics like the equalitarian norms which prevails in Sweden.

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Table of contents

1.	Introduction.....	6
2.	Literature Review.....	9
2.1	Cash flow right Vs Voting right.....	9
2.2	Corporate Governance and Executive Compensation.....	13
2.2.1	Corporate Governance.....	13
2.2.2	Executive compensation.....	15
3	Theory.....	20
3.1	Research Hypothesis.....	20
4	Empirical Model.....	21
4.1	Data Collection.....	21
4.2	Selected Variable.....	22
4.2.1	Ownership Structure Variable.....	22
4.2.1.1	Ownership Concentration.....	22
4.2.1.1.1	Equity stake.....	22
4.2.1.1.2	Vote fraction or Voting right.....	23
4.2.1.2	Dual Class Variable.....	23
4.2.2	Compensation Variable.....	23
4.2.3	Control Variable.....	24
4.2.3.1	Performance Variable (ROA).....	24
4.2.3.2	Size Variable.....	24
4.3	Statistical Model and Significance level.....	25
4.4	Econometric Problems and Actions taken.....	25
4.4.1	Heteroscedacity.....	25
4.4.2	Multicollinearity.....	26
4.4.3	Autocorrelation.....	27
4.5	Reliability and Validity of results.....	27
5	Results and Discussions.....	29
5.1	The impact of size and performance on Executive Compensation.....	29

5.2	Impact of Ownership Structure on Executive Compensation.....	29
5.3	Deviation from one-share one-vote.....	31
6	Conclusion.....	32
	References.....	34
	Appendix.....	39

The impact of ownership structure on Chief Executive Compensation Case of Sweden.

1. INTRODUCTION

The discussion on corporate governance is an old issue (could be dated back in the early 1970's) that has intensified in recent years. The governments, national and international regulatory bodies as stakeholders form an integral part in the strengthening or prescribing what good corporate governance is all about. The UK Cadbury committee (1992) defines corporate governance from a system perspective; "the system by which companies are directed and controlled". However, due to the increased demand of the different interest parties, the discussion on corporate governance has shifted from the shareholder to the stakeholder perspective. Hitt Ireland & HosKisson (2004) defined corporate governance as the relationship amongst stakeholders that is used to determine and control the strategic direction and performance of organisations. Following this argument, the involvement of the government and other regulatory bodies have resulted in the enacted of guideline, rules or procedures for good corporate governance. E.g. the SOX act enacted in 2002 by the SEC¹ in the US after Enron scandal, scandals in Japan provoked the enactment of the J-SOX (in 2007) by the BAC² and the CESR³ also enacted the EU 8th company law directives in 2004. Compensation for top executives has become a very important corporate governance issue to be examined following the current corporate scandal such as the Eron case in the US and the Scandia case in Sweden. This has triggered a lot of attention today, reason why so many Economist and Behaviourists have written articles about the issue.

The reason for these scandals has been the mismanagement of corporate resources and the failure for management to work for the interest of shareholders, Eklund (2007). This is coupled with the fact that excessive compensation package have been given to CEOs of most corporation which is an indicator of poor corporate governance system has affected the performance of corporations, Brick et al.

¹ Security and Exchange Commission

² Business Accounting Council

³ Commission of European Security Regulators

(2006). A survey by Shleifer and Vishny (1997) gives evidence that executive compensation contracts instead of solving the agency problem by aligning shareholders interest with that of managers, has contributed in aggravating the problem. This is because the excessive compensation package given to managers have stimulated short-termism and manipulation of accounting earnings, inflation of stock prices and management pursuing their personal interest rather than that of the shareholders; (Lin, 2008).

In Sweden, an investigation was conducted in 2003 and the results revealed that an executive at Scandia was paid 600 million kronor in the form of bonuses which was not reported in their annual report nor disclosed by their boards.

The Eron case was characterised by excessive performance based remuneration given to top CEO in order to achieve certain financial goals in 2001; reports revealed that these financial goals were achieved through massive accounting manipulations; (Hills, 2006)

The common characteristic with Modern Corporation is the separation of ownership and control where the decision making process that concerns the day to day activity is delegated to the management, Berle and Means (1932) and Jensen and Merklings (1976). Even though the separation of ownership and control has advantages attached to it, on the other hand it creates an agency problem between shareholders and management, (Berle and Means 1932).

Most corporations in Scandinavia and particularly in Sweden achieve the separation of ownership from control via three main instruments which include dual class share, pyramidal structure and cross ownership, (Söderström et al 2003) Sweden listed firm's exhibits a concentrated ownership structure with strong controlling owners and a frequent use of control enhancing devices such as dual class share and pyramidal ownership (Agnblad et al, 2001). These controlling owners are often single large shareholders with controlling rights on the firm.

The use of control enhancing devices (dual class share and pyramidal structure) separates cash flow rights from control rights and gives controlling shareholders more incentives to play an active role in the company. This on the other hand may also result to expropriation of minority shareholders, (Yurtoglu and Haid, 2006). It is worth noting that the emergence of dual class share and pyramidal ownership as a major characteristic of the Swedish corporate governance system is as a result of the need for external financing to promote rapid expansion and growth in the

1950s and 1960s, (Bergström and Rydqvist, 1992, Högfeltdt, 2003, Berglöf et al 2003).The need for external financing was to incorporate foreign corporate governance ideas into the Swedish model while preserving their ownership and control rights over their firms through the issuing shares of inferior voting rights and creating a pyramidal ownership structure.

These characteristics (concentrated ownership and the use of control enhancing devices of the Swedish model is of particular interest in the sense that it influences the amount and structure of executive compensation. On the contrary, Anglo-American corporate governance system exhibits a dispersed ownership structure with no dual class shares system, (Barontini and Bozzi, 2008).

It is interesting to note that several writings have focused on the Anglo-Saxon Corporate governance system with a particular interest in US and UK. It is worth mentioning that little empirical work has been provided for the Nordic region in general and Sweden in particular; which offers a peculiar corporate governance system based on a combined characteristic of the two corporate governance systems (Continental and Anglo-Saxon).

This paper will therefore contribute to the existing empirical work on the Nordic cases and will focus on the impact that ownership concentration have on executive compensation in the presence of control enhancing devices which causes the deviation of cash flow right from control right. Another contribution of this paper is to provide evidence of the separation between cash flow and control rights and how it affects CEO pay. This analysis could be used as a general reference for Nordic countries.

The paper will be structured in the following way, chapter 2 (literature review) is divided in 3 parts, the first part is about the difference between cash flow and voting right and how they both influence executive compensation while the second part is about different corporate governance system and the position of the Swedish model relative to this governance system and the third part is on executive compensation and how it is linked to ownership concentration. Chapter 3 (theory) link the study to other authors and lays down the foundation of the hypothesis to be tested in the later chapters. Chapter 4 (empirical model) describing the methodology of this piece of work while chapter 5 (Results and discussion) comments on the results from the analysis and chapter 6 (conclusions)

gives a brief summary of the work, the findings, suggestions for other research area and recommendation.

2 LITERATURE REVIEW

2.1 Cash flow right Vs voting right

The impact of ownership concentration on executive compensation has raised lots of dust in the field of corporate governance. The degree of this impact varies across nations or regions reason why lots of research has been done on it leading to different results and conclusions. Unlike the Anglo-Saxon model, where the agency problem is between the share holders and the management, the agency problem in the Swedish model lies between Controlling share holders and minority share holders; Berle and Mean (1932). The degree of the agency problem depends on the level of separation between cash flow right and voting right of the majority shareholder; (Edwards and Weichenrieder 2003).

The Swedish society is characterized by a limited protection of minority shareholders and this account for its high concentration on ownership and the use of control enhancing devices, La Porta (1997). The majority of Swedish firm have a concentrated ownership structure with a single large owner to exercise control; but few firms do exhibit a dispersed ownership structure, Eklund (2007).

The use of control enhancing devices increases agency cost because it changes the incentives of the controlling owners and also increases the entrenchments effect, Bebechk et al (1999). The control enhance device enable us to distinguish two measures of concentration; equity stake (cash flow right) and voting right. The separation of cash flow right and control right has become a central issue in analyzing the agency conflict between controlling owners and minority shareholders in the Swedish model. Cash flow right or equity stake is the proportion of share detained by a shareholder in the capital structure and this also provide the base for the distribution of dividend flow among the shareholders; while voting right represents the power of shareholders to influence the board and management. The use of control enhance devices causes cash flow right to deviate from voting right.

For firms without control enhanced devices cash flow right equals voting right. In this case, the two measures of concentration are equally important in affecting the level of executive compensation. This implies that the equity stake of a shareholder corresponds to his voting power which is used to influence the board via monitoring and active management. Nonetheless, companies where cash flow right deviates from voting right there exists a preference on the degree of the influence to which these measures affects CEO compensation. Under *ceteris paribus*, the higher the voting right the greater the ability of the shareholder to influence the board and the management through a monitoring affect; (Edwards and Weichenrieder 2003). Monitoring prevents management from extracting private benefits which results to a low level of executive compensation.

Similarly, under *ceteris paribus* a higher cash flow right of the controlling owners the lower his incentive to pursue expensive projects or policies which will lead to a low level of CEO compensation. This is because a higher cash flow right will imply that in the case of bankruptcy, the shareholder will incur more loss. Therefore, the shareholder incentive becomes more closed to that of the minority shareholders.

In terms of preference, we think that voting right has more influence on the level of executive compensation than equity stake. This is because a higher equity stake does not necessarily imply a higher voting right. For instance a controlling owner who owns 51% of voting right in firm A and who in tend has a 51% controlling power in firm B, only has an equity stake in firm B equivalent to 26.01% (51% of 51%).

Similar to some European countries, the Swedish corporate law allows for the use of control enhancing devices; dual class share, pyramidal structure and cross holding. These devices enable the controlling owner to maintain control with just a small proportion of cash flow right; hence, creating a wedge between cash flow right and control rights, Riyanto and Toolsema (2004). Sweden is among the first three countries in the world in the use of all the 3 control enhancing devices (La Porta 1999). For instance, Sweden is ranked first in the use of dual class share and second in the use of pyramidal structure in the world, Holmen and Knaopl (2004). We shall examine the different devices used for separation.

According to Fisher, Attig and Gadhoun (2004) a pyramidal holding is a structure consisting of group of companies where the top control chain at the apex is the

ultimate controlling owner and with a lower level of chains consisting of companies where these ultimate owners own shares. It could also mean owning companies via a chain of firms. For example firm where the controlling owner owns 50% of the shares which also owns 50% of another firm, can achieve control of the second firm with just an equity stake of 25% (50% multiplied by 50%) in the second firm.

The controlling owners can exert control on the firm belonging to the same pyramidal chain with just a small proportion of cash flow rights, Riyanto and Toolsema (2003). The advantage of this structure is the possibility of controlling a huge amount of resources but with just a small proportion of the equity invested into the company, Bianchi, Bianco and Enriques (1997). Another advantage of such a structure is the diversification of resources which reduce risk exposure of the controlling owners. On the other hand pyramidal structure increases agency problem through accumulation of wealth in the form of wealth transfer, cross lending and other mechanism, Fisher, Attigand Gadhoun (2002). The pyramidal holding makes the structure of a company more complex and creates an internal capital market through which the controlling owner gets benefit; Fisher, Attigand Gadhoun (2002).

Mork et al. (2001) believe that pyramidal holding creates a monopolisation of power within the pyramid and therefore seek the personal interest of the controlling owners at the detriment of the minority shareholders. The use of pyramidal holding to separate control rights from cash flow rights give incentive to controlling shareholders to transfer resources from a lower chain to a higher chain through cash appropriation, asset sales, etc at the detriment of the minority shareholders this is referred to as Tunneling, Riyanto and Toolsema (2004). The pyramidal structure have an advantage in the sense that it is useful in a situation of financial distress where resources can be transferred from a viable firm to a firm at a stage of bankruptcy, this is referred to as Propping (Friedman, Johnson and Mitton 2003). Tunnelling and propping are legal in Sweden as a result of a weak investor protection. Johnson et al. (2002). The use of pyramidal holding in Sweden is common in family businesses to maintain control and dilution of control. For example at the Stockholm stock exchange the SE Banken company is controlled by the Wallenberg family through three foundation in the pyramidal structure that control the largest firms at the stock exchange. The multiplicity of

the pyramidal group holding have been favored through a neutral tax policy which consist of taxing dividends ones irrespective of the control change, Bianchi, Bianco and Eriques (1997)

Another legal way of separating ownership from control is the use of dual class share which consist of issuing two types of shares which are superior voting right shares and inferior voting right shares. The frequent use of dual class share have completely changed the ownership structure and given it a new face and a more stable structure, Eklund (2007). Statistics show that 55% of companies at the Stockholm stock exchange use vote differentiation to separate ownership from control (Bohren and Odegaard (2005) and Söderström et al. (2003)).

Chen (2004) postulates that dual classes of share gives controlling rights to the founders but limits risk exposure through owning fewer shares. Peterson (1998) opined that superior voting rights provide more premiums when traded at the Stockholm Stock Exchange (SSE). This is a private benefit which is associated to superior voting right.

An advantage for vote differentiation is the ability to influence management when it is inefficient hence quick decision can be taken to replace incompetent management when the firm is facing high risk (Peterson 1998). He also found out that ownership-specific characteristics were vital for vote differentiation in companies. Denis (1994) and DeAngelo (1985) realised that vote differentiation becomes important when the controlling owners play an active role in the firm.

On the contrary, dual class share in the ownership structure give incentive to the controlling owners (insiders) to extract private benefit by concentrating the ownership structure and hence increases the agency problem between the shareholders, (DeAngelo, 1985, Grossman and Hart, 1988).

It is worth noting that the method of separation which exists in the Anglo American model is the dispersed ownership structure with a powerful manager, counterbalance by takeovers, independent directors, and supervision by financial institution, Bianchi, Bianco and Eriques (1997).

2.2 Corporate Governance and Executive Compensation

2.2.1 Corporate Governance

The system of corporate governance in the world varies from country to country, but they retain their features in one of the two corporate governance systems that prevail in the world.

The Anglo-American corporate governance system which is typical of the US, UK and Ireland is based on the dispersed ownership structure (Hamberg, 2001) and is a market oriented system which is regulated by the financial market. Most of these firms with this structure are quoted in the stock exchange. The major shareholders in this type of governance are institutional owners. It is characterized by a one-tier governance system which consists of a governance body called the board of directors who are appointed by the shareholders. The governance body plays an executive function and at the same times a supervisory role. In this model there is inter-dependence between the CEO and the board of directors in the sense that CEO is also part of the board and may also be the chairman of the board. This system is characterized by frequent market take over which is an indication of a good corporate governance mechanism.

The Continental European system is of both French and German origin, (Hamberg, 2001); which is a bank oriented system. The main feature with this system is a concentrated ownership structure with few controlling owners at the top of the company. The system has a two-tier governance model which divides the governance body into two: The supervisory board and the Managing board. The Supervisory board is appointed at the shareholder meeting and the managing director is appointed by the board of directors. In this model, takeovers are very rare and not considered as a corporate governance mechanism; (Corporate Governance Code, 2004).

The Swedish model is influenced by its country specific characteristic, example such as culture, standards, law and corporate governance code which gives it its distinctive features. It is interesting to note that the Swedish model possess' characteristics of both corporate governance system. Its ownership structure is concentrated which is similar to the continental model but some company do

exhibit a dispersed ownership structure which is similar to the Anglo-American system. The model is closed to a one-tier governance system because of the family influence in the ownership structure which characterizes most of the ownership structure in the Swedish firms. Similar to the two-tier system the governance body is divided into two; the supervisory and managing board. The managing board is subordinate to the supervisory board; (Corporate Governance Code, 2004).

Recently there seem to be a convergence toward the Anglo-American model as a result of globalization, cross ownership which is translated by the recent mergers between Swedish and foreign companies as well as current takeovers of Swedish firms, Henrekson and Jakobsson (2002). The Swedish corporate governance code does not specify the board system in which the Swedish model falls in, rather gives characteristics that are similar to both systems.

The peculiarity with the Swedish system is that the shareholder play an active role in the company and exercises their influence at the general shareholders' meeting which is the highest decision making organ in the company. This general shareholders' meeting is held within six months at the end of the financial year. The aim of the meeting is to decide on whether to adopt the income statement and balance sheet and also on how the cash flow will be distributed among shareholders. They also elect the members of the board and the audit committee, and also evaluate their work.

Shareholders exercise their influence through their individual vote which is based on the number of share owned. In the absence of a member vote can also be proxy. The law creates provision for the protection of minority shareholders in the presence of majority controlling owners by prescribing that some decisions requires a majority of both votes and share represented at the meeting, (Swedish code of corporate governance 2008).

According to the code, the board should consist of at least three members and headed by a chair person. The main responsibilities of the board is to organize, seeing into the management and also serve as intermediation between shareholders and the management by implementing directives given at the shareholders' meeting provided it is in accordance with the law. They also help to reduce moral hazard by supervising the activities of the management team. This is further achieved by the independence of the board which is a major characteristic of the Swedish model. This is emphasized by the OMX Nordic Exchange

Stockholm regulation which states that at most they should be one member of the board who is in the executive team. It is worth mentioning that most companies in Sweden operate with no director in the executive team.

The chief executive officers are those responsible for the day to day management of the business. They are subordinates to the board of directors and therefore follow instructions from the board on matters concerning the management of the firm. They may be members of the board but not the chair person to have an influence on the board.

The auditors are appointed at the shareholders' general meeting and their function is to appraise the yearly account and accounting practices provided by the board of directors and chief executives. They ensure that the annual reports are in accordance with the legislation enforced and also that it reflects the true picture of the company. They are answerable to the shareholders and are independent from the board of directors and executive team. They have as task to report any breach of conduct by the board of directors and the executives which deviates from the companies act.

2.2.2 Executive Compensation

In the past years empirical data on executive compensation have not been subjected to a mandatory disclosure from the public in the continental European countries. This made analysis on compensation difficult. It is only recently that many European countries especially Sweden adopted regulations which imposes the total disclosure of executive compensation to the public especially for listed companies in the Stockholm Stock Exchange (SSE). The executive compensation pay package in Sweden is smaller compared to other European pay packages and the gap is even wider for Anglo-American countries like US and UK, (Randoy and Nielsen 2002). For instance in 1999 the CEO of Ericsson one of the leading telecommunication firm in Sweden had a salary of 8.9million SEK (US\$1.1million) while the CEO of Motorola an American competitor received US\$58.9million (including stock options) in the same year; (Randoy and Nielsen,

2002). The comparison is more feasible when we compare CEO pay package for publicly traded firm in the Stockholm stock Exchange and those in the American context. It is noticed that the CEO compensation in Sweden follows a domestic market trend rather than the global industry trend, (Randoy et al. 2002). This explains why the level of CEO compensation in Sweden is low. Another reason for the low pay package is the Social Democratic system in place with an equalitarian culture which prevents high wages through tax policies and legislation, (Economist: January 2001).

Moreover, the disclosure of compensation package to the public prevents board from setting high pay levels for CEOs. Furthermore, the minority shareholders in Sweden have been against unnecessary high pay levels for CEOs, (La Porta et al., 1998). It is worth noting that the compensation package for Sweden comprises of the main component of a CEO pay package similar to other countries. These include salary, bonuses (cash and stock) and publicly traded stock options; (Randoy et al; 2002).

It is interesting to note that most US executives receive a greater proportion of their salary in the form of stock option and other long term incentives; while their Swedish counterpart receive a greater proportion of their remuneration in terms of basic and variable compensation rather than stock options. Recent data on executive compensation in Sweden show that there is a convergence of remuneration in terms of pay levels and compensation structure to the Anglo-American remuneration system, (Murphy, 1999). Most Swedish firms now remunerate a greater proportion of their executive compensation in terms of stock options.

In recent years, Sweden has witnessed a drastic increase in foreign ownership about 38.7 percent at the end of 1999. This has completely restructured the corporate governance structure in Sweden and also the CEO compensation pay packages through incentive based compensation, (Barca and Becht, 2001). The implication of these major takeovers is the movement toward the Anglo-American corporate governance system, (Kaplan, 1998) which is also affecting the rest of the world.

The CEO compensation issue can also be explained by the agency theory (Fama and Jensen, 1983) which seeks to determine the optimal compensation package for CEO. This compensation package is such that it should be designed to incentivize

the managers and reduce moral hazard problem between owners and management; through accounting based performance remuneration such as bonuses thus maximizing shareholders wealth. Some prominent researchers have argued that the agency theory fails to explain the CEO compensation; (Beker et al; 1988, Jensen and Murphy 1990). This is because an optimal incentive compensation package can only be possible if manager's efforts can be observed which is difficult in practice and also because most executive compensation contracts are related to stock options rather than accounting base performance remuneration. These authors favour the thought of Organisational Theorist scholars which addresses the CEO compensation issue as a political process and thus gives it a descriptive dimension. They advocate on CEO power and board powers as factors that determine CEO compensation decisions; (Findelstein, 1992, Boyd, 1994; Zajac and Westphal, 1996; Elhagrasy et al., 1998/1999.) They argued that CEO power enables CEOs to influence the board and hence determine their compensation package. Studies by Elhagrasy et al., 1998/1999 indicates that CEO tenure, CEO ownership, board size, firm size, board ownership are determinants of CEO power. This is in the frame work of the theory of the agency contract.

In the agency contract theory, all the participants which have a link with the firm have an implicit or explicit contract binding them together. The agency contracts binds the CEO to the board of directors through specific rules laid down in the contract which consist of the monitoring system for management, the compensation structure which incentivise the management to align his interest to that of the shareholders and the function the CEO will play in strategic decision; (Jensen,1983). In the process of the establishment of the contract there might be some opportunistic behaviour of the CEO as a result of private information and moral hazard which comes into play when negotiating the contract particularly the pay package. These make him negotiate a favourable contract, (Banning 2004). When the ownership is dispersed like the case of Anglo-American model, the dispersed shareholders finds it difficult to create the alignment of interest with that of the managers through inadequate monitoring, power and communication to enforce their interest. This as a consequence gives the CEO an upper hand in negotiating a contract especially when there is a weak board of directors; Berle

and Means (1932). The result of this is that the manager is able to negotiate a high pay package for himself, (Jensen and Meckling, 1976; Fama and Jensen 1983).

On the other hand, in a concentrated ownership structure with a controlling owner, the power of negotiation of the contract is on the shareholders because the controlling owners can easily influence the board to align their interest with that of the managers; the consequence is a low pay package for the management.

Gugler (1999) found that the effects of different ownership structures are different across countries. Therefore, the effect of agency cost and CEO power can be solved by specific factor relative to nations such as national culture, business norms, national tax incentives and differences in legal structures.

The level of the pay package can also depend on the relationship between the CEO and the characteristic of the board of directors irrespective of the ownership structure. CEOs generally strive at protecting their interest and achieve this by seeking authority which enables him to easily replace the board of directors with outside board of directors who are more friendly and similar to him in terms of age; (Main, O'Reilly and Wade, 1995). A study by Fazel and Louie (1990), found that the higher the concentration of outside board of directors, the more influence the CEO has on the board because the outside board of directors have a relatively new knowledge about the firm and they rely on the manager for information about performance. Also, they can easily be manipulated as a result of the fact that the outside board of directors needs time to associate with the existing board of directors. This therefore leads to favourable terms of contract in terms of high pay levels by the CEO; Banning (2004). It can also be said that the higher the board turnover the more power the CEO has on the board; Banning (2004).

CEO/Chair duality is another determinant of CEO power on the board of directors. CEO/Chair duality implies that the CEO is a member of the board, (Dalton and Kesner, 1985). Being a member of the board he can easily negotiate favourable terms of contracts in terms of high pay levels. In Sweden, CEO/chair duality is forbidden in publicly traded firm, this increases board independency and a more power to board to negotiate remuneration contract; (Randoy and Nilsen 2001). Research by Main, O'Reilly and Wade (1995) shows that board turnover is higher in dispersed ownership structures than those with concentrated ownership structures.

3. THEORY

3.1 Research Hypotheses

The scope of our study being too vast to comprehend the concept we need hypotheses to delimit our research. This falls in the framework of quantitative technique and deductive research approach.

Existing literature review reveals no specific conclusion regarding the relationship between ownership concentration and CEO pay; rather there is a mix result on the issue.

Some researchers find no relationship between concentration and CEO compensation in the Anglo-Saxon model like the case of Stigler and Friedland (1983) who conducted a research on a sample of 92 US companies from 1937-1938. Ke, Petroni and Salieddine (1999) obtained that ownership concentration is statistically insignificant for executive compensation in insurance company. Others find a negative relationship between ownership concentration and CEO pay. For instance FitzRoy and Schwalbach (1990) arrived at this conclusion by using the Herfindahl index of direct ownership on data from 1965-1985. Schhmid (1997) arrived at the same conclusion by using the Herfindahl index in the 1991 cross sectional sample of 110 samples of 120 largest German listed companies. Santerre and Neun (1989) did a similar research to that of Stigler and Friedland (1983) but including profits as an additional independent variable and obtained a negative relationship between ownership concentration and CEO pay. Dyl (1988) also did a similar research but used current data on CEO remuneration to arrive at the same conclusion.

A study by Barontini and Bozzi (2008) found that high ownership concentration leads to lower CEO pay. According to them it is because controlling shareholders can easily monitor the management and prevent them from extracting private benefits through personal compensation. Furthermore, they found that the separation of cash flow and voting right has a negative effect on the level of compensation. Their survey was done on 215 Italian listed companies for a period of 1995-2001. This idea is in line with the efficient monitoring hypothesis which states that controlling owners or large blocks of owners can better monitor the management than dispersed shareholders because of their expertise and fiduciary responsibilities, (Pound, 1988). Monitoring prevents

managers from excessive power and put pressure on board of directors to have power over the management leading to a low level of CEO compensation, (Jiang et al, 2008). This leads us to the formulation of our hypotheses below which will be tested in our analysis.

Hypothesis 1: There exist a negative relationship between cash flow right (equity stake) and the level of CEO pay.

Hypothesis 2: There exists a negative relationship between voting rights and the level of CEO compensation.

4 Empirical Models

4.1 Data Collection

Andersen (1998) enumerate the 3 possible way adopted in a literature research process which consist of articles, library database and questions to people.

We read a lot articles related to our topic from internet sources and the Goteborg library and have gathered a lot of good advice from our supervisor and program coordinator on how to go about in collecting the data. Collection of the data set is an important process in our work because the quality of the data determines the reliability and validity of our study.

Looking at the nature of our data set required to carry out the regression and time frame given for this work, we have decided to use secondary data source which consist of obtaining information from a second hand source, that is information published by books, libraries, reports, or internet sources.

Our data set was obtained from companies annual report in 2008 listed at the Stockholm Stock Exchange and the reason for this choice of data is the easy access of the data online and the reliability of the information since the information are from listed companies who are subjected to strict regulations in terms of the quality of information available on the website given by NBK (Näringslivets Börskommitte), FAR (Föreningen Auktoriserade Revisorer) and BFN (Bokföringsnämnden).

We have decided to use a cross sectional research design which consist of collecting data related to two or more variable be it qualitative or quantitative at a given point in time, in order to determine the association between the variables (Bryman and Bell 2007).The cross sectional research design falls in line with the objectives of our studies which consist of determining the relation between our variables

We collected data from a sample of 45 largest listed companies .These companies are large in terms of market capitalization at the Stockholm stock exchange and we think that this sample is representative of the market and good enough for conclusions to be drawn on a general level. The list of the 45 largest companies was obtained from Dagens Industri a Swedish Financial news paper. These data

were collected on 2008 annual reports because we want our work to reflect the current market situation which is affected by the current financial crisis.

The main criterion in collecting the data was the exclusion of any company in the data set if some variables were missing for the specific year (2008)

4.2 Selected Variables

4.2.1 Ownership structure variables

As earlier said above, the level of executive compensation could be determined by the ownership variables which are enumerated below.

4.2.1.1 Ownership concentration: measure the degree of influence which the shareholders can exert on management (Thomsen 2008).

4.2.1.1.1 Equity stake (conc.)

A proxy of ownership concentration in terms of equity share can be measured by the share of the largest shareholders in the capital structure (Thomsen 2008) which is what we did in our analysis. We used this concentration measure because we want our work to be comparable with that of others who used a similar measure like Barotoni and Bozzi (2008). We could not use other measures like Herfindahl index or a truncated herfindahl index because information about some of the main shareholders for some companies were not available on the websites and also because of the measure is complex. We use a bench mark of 10% to interpret the concentration of the ownership structure for the various companies. We used this bench mark to make our work much more comparable with that of other researchers in the same field of research like Chen (2004). This implies that the ownership structure of companies where the largest owner has more than 10% stake in the equity capital is considered to be concentrated and vice versa. The ownership concentration variable considered in our analysis is a random continuous variable.

4.2.1.1.2 Vote fraction or Voting right (voting)

A proxy of voting right used is the voting right of the largest shareholder which is a vote fraction measure, frequently used by Chen (2004) and Cronqvist and Nilsson (2002). Voting right deviate from equity stake in the ownership structure because of the control enhancing devices (dual class share system and pyramidal structure). Similarly, we used a bench mark of 10% of the voting right of the largest shareholder to judge the concentration. A voting right of above 10% by the largest shareholder to be considered as highly concentrated (Leech and Leahy, 1991) and vice versa. It is worth nothing that in the sample of 45 listed companies used in our analysis, some of them had one class share system which makes equity stake equivalent to voting rights while others had a dual class share system. The voting right variable was considered as a random continuous variable.

4.2.1.2. Dual class variable (Dual).

Dual class variable is used because some companies in our sample possess a dual class share system while others do not. In our analysis, the dual class variable is a dummy variable which takes the value 1 if the company has a dual class share system and 0 in the absence of the dual class system.

4.2.2 Compensation variables

Executive compensation variable in our model is considered as our dependent variable since it is explained by the model. The executive compensation examined in our work is that of the chief executive officer's compensation. We use total compensation to represent the variable for CEO compensation. Total compensation (comp) in our analysis consist of monetary reward given to CEO and this include base compensation, bonuses and other benefits (monetary). We use natural logarithm in our model to reduce or scale down the high values of the compensation variable. This is also done by prominent researchers like Yurtoglu and Haid (2008). In collecting data of compensation variable from annual report some compensation were given in currency different from Swedish kronor. So we had to convert the compensation value to Swedish Kronor using the same exchange rate of one day. Compensation is considered to be random variables.

4.2.3 Control variables

We used control variables that accounts for firms specific characteristics such as performance and size to explain the level of executive compensation. Previous studies have proven the influence of firms' characteristics on executive compensation.

4.2.3.1 Performance variable (ROA)

Performance and level of executive compensation are positively related (Kaplan 1994, Murphy 1985)

For performance proxy, we used a commonly used accounting based performance variable also used by most researchers on related topic e.g. (Chen 2004) and Cronqvist and Nilsson (2002); this is return on assets. This is a simple and readily accessible measure of performance. Return on asset (ROA) measures how the company asset is used to generate profit and it is calculated as the ratio of net income on total asset.

We think that the higher the return on asset, the higher the level of executive compensation via the variable component of compensation. This is as a result of the fact that most CEO remuneration is tied to performance related variable. Performance is a random variable. It is not clear whether performance is an endogenous variable or not in our model reason being that instruments such as ability, ambitious, greed etc to test for endogeneity is not quantifiable and difficult to measure.

4.2.3.2 Size variable (size)

The proxy of size adopted in our regression model is total asst which is an accounting measure of the size of the company and consist of the entire asset both tangible and intangible asset of the company in monetary value. The bigger the firm's size the more talented management has to be in order to run the company and consequently a higher pay level (Rosen 1982).

We also used the natural logarithm of the variable size in order to reduce the high values of total asset. Size here is considered to be a random variable.

4.3 Statistical Model and Significance level

We used the ordinary least square method on our cross sectional data .The OLS method is the best linear unbiased estimator (BLUE) for the model under the Gauss Markov assumptions (Hill et al, 2001, p77) which states that the estimator has the least variance in all linear and unbiased estimator (Hill et al 2001, p77). We used the ordinary least square regression analysis because of its remarkable property and also the fact that it has been used by a lot of authors in the related field with high validity.

The regression model we used was replicated from the work of Yurtoglu and Haid, (2008).

To determine whether a variable is significant or not we used the p-value generated by the Stata software. With a significance level of 5%, a p-value lower than the 5% implies that we reject the null hypothesis and p-value greater than 5% implies that we cannot reject the null hypothesis. The model is given below:

$$\ln(\text{comp}) = \alpha + \beta(\text{performance}) + \gamma \ln(\text{size}) + \delta(\text{voting}) + \lambda(\text{dual}) + \mu(\text{conc.}) + \varepsilon$$

Where α , β , γ , δ , λ , μ are constants ranging between 0 and 1; ε is the error term.

4.4 Econometric problems and action taken

With a cross sectional and linear regression analysis used in our work, it is possible to have econometric problems which might affect or bias our result if no actions are taken. These economic problems are the presence of Heteroscedasticity and autocorrelation between the error terms and the multicollinearity.

4.4.1 Heteroscedasticity

Heteroscedasticity occurs when the variance of the error terms are not constant and this violates the assumption of the linear regression model (Hill et al 2001 p238).Most studies have revealed that heteroscedasticity is common in cross sectional data. When the error terms are heteroscedastic, and the OLS estimator is used to estimate the coefficients, the consequence is that the least square estimator is still linear but not BLUE (Best Linear Unbiased Estimator) (Hill et al 2001

p238). They no longer have the minimum variance. We conducted the Breusch-Pagan/ Cook-Weisberg test to test for heteroscedasticity in our model used and the results show that our model is homoscedastic because our p-value was greater than the 5% significant level given us enough grounds to accept the null hypothesis of constant variance in the error term. As shown below.

```
. estat hettest
```

```
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
```

```
Ho: Constant variance
```

```
Variables: fitted values of lncmp
```

```
chi2(1) = 0.03
```

```
Prob > chi2 = 0.8634
```

4.4.2 Multicollinearity

Multicollinearity exists when two or more variables in the model are highly correlated. When we run the OLS estimator with multicollinearity it leads to misleading results and interpretation and also the standard error becomes sensitive to changes in the data making them unstable (Hill et al 2001, p190, Gujarati 2006). We conducted a multicollinearity test and obtained the variance inflation factors (vif) which are less than 10 in our model, it implies that there is no problem of multicollinearity.

Variable	VIF	1/VIF
voting	4.00	0.249984
conc	3.30	0.303386
dual	1.88	0.532060
lnsize	1.20	0.833445
performance	1.13	0.883042
Mean VIF	2.30	

4.4.3 Autocorrelation

Autocorrelation occurs when the error terms are linked up with itself and the error terms of the previous years (Hill et al 2001). The consequences of auto correlation on the model include; the least square estimator are still linear and unbiased but not BLUE; also, the estimated variance of the OLS estimator are biased, (Gujarati 2006). Since the variables used in our analysis is observed for a given year 2008; it therefore implies that there is no autocorrelation and was proven by a test conducted.

4.5 Reliability and validity of our Results

Reliability refers to the consistency of the measurements and also the exactness of the information used in the research (Andersen 1998).

Our data were collected from annual report of companies listed at the Stockholm Stock Exchange which provided us with reliable information because these companies are subjected to strict regulations when it comes to the quality of the information they provide on their website.

To reduce human error, we have carefully checked and crosscheck the data for each variable chosen .We have also used variables which are commonly used by well known authors in the field and have tested for heteroscedasticity,

multicollinearity and autocorrelation to ensure that the results obtained are reliable.

Validity refers to the approximation of the empirical results with the theory (Andersen, 1998).

Our results obtained are similar to results of authors in the related field like Stigler and Friedland (1983).

5 RESULTS AND DISCUSSION

5.1 The Impact of Size and Performance on Executive Compensation.

We estimated the coefficient for our model by assuming that the slope coefficient is the same across all the firms. The estimation results are found on the table on the appendix figure 2

It can be noticed that the p-value for the size (Insize) and performance variable is greater than the 5% significant level given us grounds to accept the null hypothesis that the coefficients are equal to zero. This implies that in the Swedish model, performance and size has no significant effect on total level compensation. Size and performance are not explanatory variables for total remuneration. CEO compensation can also be affected by macro-economic shocks such as exchange rate, interest rate and inflation rate fluctuations which blurt the link between performance and compensation (Wihlborg, Zhang and Oxelheim 2008)

5.2 Impact of Ownership Structure on Executive Compensation

Looking at the summarized statistics on the appendix figure 3, it can be seen that Swedish companies are concentrated with the mean concentration equal to 21.7% in terms of equity stake. This implies that on average, the largest share holders in the Swedish model is having an equity stake of 21.7% which shows that the largest shareholder has a enough stake to lose in the company in case of bankruptcy. High monitoring is necessary in order to preserve this stake. When we compare this ownership characteristic with that of German or Italian firms, we see that German and Italian firms are more concentrated with the average equity stake of the largest share holder to be about 45% in the Italian case (Barontoni and Bozzi 2008)

Very few firms, exhibit a dispersed ownership in our sample. Out of the 45 sampled firms, just 3 had an ownership concentration of less than the 10%.

We also measured concentrations in terms of voting right exhibited by the largest owner and we realized that the average voting power of the largest share holder is about 33% which is far greater than the equity stake. The difference in value between voting right and equity stake is as result of the presence of control enhancing devices (dual class system and pyramidal structure) which separate cash flow right from voting right. This indicates a high conflict of interest between majority and minority shareholder

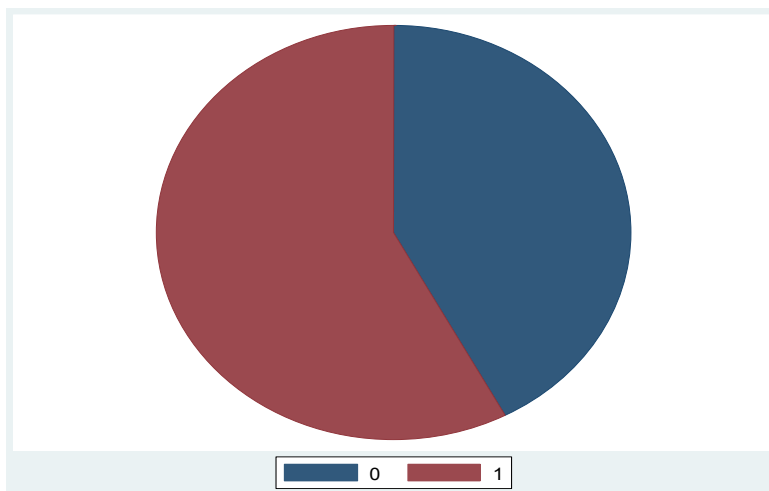
Our regression analysis shows that concentration variables (equity stake and voting power) had no significant impact on the compensation level because their p-values are greater than 5% figure (1 and 2). The conclusion is that high voting right and equity stake is used to enforce the interest of the share holder but not used to influence the level of CEO compensation. The level of CEO compensation maybe affected by the identity of the share holder or follows a general pattern which is relative to the industry where the firms operate or may depends on countries specific characteristics like norms, or equalitarian culture which prevails in Sweden. Linking our results to previous findings we realized that our results are consistent with that of Stigler and Friedland (1983). This doesn't mean that other findings are wrong but instead confirms one of the numerous results obtained. The reason for these conflicting results is because the link between ownership concentration and executive compensation can also be affected by country specific factors like law, norms, culture etc. The only possible relationship that exists in our model is between voting right and concentration which has a positive correlation coefficient and a p-value which is less than 5% significant level (figure 1). This implies that the higher the voting right, the higher the ownership concentration in terms of equity stake.

5.3 Deviations from One-Share-One-Vote

About 58% of the companies in the sample had a dual class system and 42% had no dual class system. Most companies in our sample with dual class system are more concentrated in terms of voting right. As said earlier, the use of dual class system makes the owners structure more concentrated. Looking at the past ownership structure of Swedish firms, we realize that the use of control enhancing devices has reduced over time which is showing that the Swedish model is slowly moving toward the Anglo American model.

The regression analysis shows that the dual class system has no significant impact on executive compensation. The dual class system is used to separate ownership and control but does not affect the level of CEO pay. The distribution of companies with dual class system is shown in the pie chart below.

dua1	Freq.	Percent	Cum.
0	19	42.22	42.22
1	26	57.78	100.00
Total	45	100.00	



6 Conclusions

This paper is aimed at studying the impact of ownership structure via the separation of cash flow and voting right and its impact on executive compensation in Swedish list companies. It is worth noting that little empirical research has been done on this issue concerning Sweden and the Nordic region in general.

We started by examining ownership structure of Swedish listed firms and we found that the Swedish listed companies exhibits a concentrated form of ownership structure with a major controlling owner at the top of the pyramid who has power in terms of voting rights to enforce his interest on the manager through an active management role. The problem with this type of ownership structure is that it shifts the agency problem from the shareholder/manager perspective to the controlling/minority shareholder perspective in the form of rent extraction, and expropriation of the right of the minority shareholder. We further examined the devices used by Swedish listed firms in order to separate ownership from control. We found that most of these listed companies used a dual class system, pyramidal structure in maintaining control with just a small proportion of the equity. These control enhance devices causes the cash flow right to deviate from voting right. The theory suggest that both cash flow and voting right have a negative relationship with the level of executive compensation, but we believe that voting right is more important than equity stake in determining the level of CEO pay

We also examined the corporate governance structure of Sweden which is seen that it possess' a remarkable characteristics in the sense that it has inherited both characteristics of the Anglo American and European corporate governance system.

We also examined the compensation structure of Swedish listed firms and realized that most executives currently receive a greater proportion of their remuneration in the form of stock options not based on performance related pay. It can also be seen that compensation level in Sweden is low compared to its European and American counterparts as a results of its strong equalitarian culture and disclosure of compensation pay packages to the public and also the fact that compensation levels follow a domestic trend rather than an international trend.

A cross sectional and linear regression analysis was used to test the relationship that exist between ownership concentration and the level of executive compensation; using compensation and ownership structure data from 2008 annual reports and control variable that accounts for firm specific characteristics like performance and size. We have reached at the conclusion that there is no significant relationship between ownership concentration and the level of executive compensation in the sample of 45 largest listed companies at the Stockholm Stock Exchange. The reason to account for this may be as a result of compensation level related to the industry which the firm operates. It could as well be as a result of macro-economic fluctuations like the case with the current financial crisis which blurts the relationship between ownership concentration and CEO compensation or as results of the country specific characteristic like the culture and norms

Looking at the previous ownership and executive compensation structure of Swedish listed firms, we also find that there is a convergence of the structure and level to the Anglo-American model as a result of globalization.

As recommendation, we think that the Swedish corporate governance and executive compensation system should become more flexible to the globalization effect in order to meet up with international standards since the world is fast becoming a global village. The reason being that the Swedish corporate governance and compensation system is too influence by the country specific characteristics. For instance the strong equalitarian culture which affects CEO compensation in Sweden could cause good managers to prefer countries where CEO compensation is higher and therefore might be a disadvantage to Sweden.

It would be interesting for further research to be done linking ownership concentration and level of CEO compensation taking into consideration the industry effect. Also further research can also be done relating country specific factors such as norms; culture, law etc in determining the level of executive compensation.

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Appendix

Figure 1,

	lncomp	performance	lnsize	conc	dual	voting
lncomp	1.0000					
performance	0.1100 0.4719	1.0000				
lnsize	0.0413 0.7879	0.0433 0.7777	1.0000			
conc	-0.1735 0.2543	0.1580 0.2998	-0.1027 0.5019	1.0000		
dual	-0.1631 0.2843	-0.2684 0.0746	0.2450 0.1048	-0.0180 0.9068	1.0000	
voting	-0.1850 0.2239	0.0375 0.8070	-0.1337 0.3811	0.7659 0.0000	0.3592 0.0154	1.0000

Figure 2

Source	SS	df	MS			
Model	6.08096487	5	1.21619297	Number of obs =	45	
Residual	79.1517507	39	2.02953207	F(5, 39) =	0.60	
Total	85.2327156	44	1.93710717	Prob > F =	0.7007	
				R-squared =	0.0713	
				Adj R-squared =	-0.0477	
				Root MSE =	1.4246	

Incomp	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
performance	.8852807	1.565981	0.57	0.575	-2.282216	4.052777
lnsize	.0409122	.1036796	0.39	0.695	-.1687996	.250624
voting	.4206641	1.948876	0.22	0.830	-3.521309	4.362637
dual	-.509127	.5894684	-0.86	0.393	-1.701439	.6831854
conc	-2.313242	2.75001	-0.84	0.405	-7.875663	3.249178
_cons	16.32888	2.513206	6.50	0.000	11.24544	21.41232

Figure 3

Variable	Obs	Mean	Std. Dev.	Min	Max
comp	45	9.14e+07	3.08e+08	1267000	1.58e+09
performance	45	.0448289	.1459467	-.718	.3
size	45	4.58e+11	1.83e+12	2.49e+07	1.21e+13
conc	45	.2169956	.1417881	.0037	.604
dual	45	.5777778	.4994947	0	1
voting	45	.3286311	.22041	.0038	.893
lncomp	45	16.70781	1.3918	14.05216	21.17942
lnsize	45	24.3723	2.269027	17.03095	30.12092